DRAGONFLIES AND DAMSELFLIES (ODONATA) OF ACADIA NATIONAL PARK AND VICINITY, MAINE[1]

Harold B. White, III[2]

ABSTRACT: An annotated list of 97 species of Odonata now known from Mount Desert Island, Hancock County, Maine is presented. Included for the first time are: *Lestes inaequalis, Enallagma durum, E. geminatum, E. signatum, Ischnura posita, Aeshna verticalis, Libellula incesta, Erythemis simplicicollis, Pachydiplax longipennis, Tramea carolina, Pantala hymenaea,* and *Tarnetrum corruptum.* These 12 were found within Acadia National Park and, with the exception of *A. verticalis,* all are at or near their northeastern limit of distribution in North America. This is the first time *E. durum, T. carolina,* and *T. corruptum* have been reported for Maine. Also included are the first Odonata records from Isle au Haut, Knox County, Maine.

Mount Desert Island on the coast of Maine has virtually all of the aquatic habitats typical of the nearby mainland except for rivers and large streams. Its glacier-scoured pink granite hills rise to 1530 ft (467 m) and provide a region of unusual beauty much of which is preserved as part of Acadia National Park. Although Acadia is one of the most popular National Parks, most visitors are drawn to the rugged shore, leaving many of the freshwater habitats relatively undisturbed. These habitats are populated by close to 100 species of Odonata, a diversity that is difficult to find in a comparable area (108 mi^2; 280 km^2) anywhere in the world this far north (44°N).

While the Odonata of specific regions of Maine have been surveyed by Wadsworth (1890, 1891, 1894, 1898), Harvey (1891, 1892, 1898, 1901), and Borror (1940, 1944, 1951, 1957), Mount Desert Island is the only region that has been repeatedly surveyed for almost a century. Bullock (1891) reported eight species from the island. Three additional species he collected were reported by Calvert (1894). Howe (1917-1920; 1921) added more species to the list, most of which were taken by Charles W. Johnson, curator of collections of the Boston Society of Natural History.

Presuming that Mount Desert Island should have an insect fauna as fascinating as the flora documented by 19th century botanists, the Boston Society of Natural History initiated a comprehensive insect survey in 1918. With the exception of 1925, Johnson spent part of each summer until 1926 collecting on the island. He published *The Insect Fauna* as Part I of the *Biological Survey of the Mount Desert Region* (Johnson, 1927) with the help of Dr. William Procter, wealthy summer resident, naturalist.

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[2]Department of Chemistry and Biochemistry, University of Delaware, Newark, DE 19716.

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and a director of the Procter and Gamble Co. (Alexander, 1952). Among the thousands of species of insects reported were 46 species of Odonata. The Society's expectations had been realized and in addition Procter expanded his interests from the marine life to include the terrestrial life of the island. After Johnson's death in 1932 (Brues, 1933), Procter went on to revise *The Insect Fauna* as Parts VI and VII of the *Biological Survey of the Mount Desert Region* (Procter, 1938; 1946). The later annotated list of 79 species included a number of rarer species taken by Carsten Ahrens, a Ranger-Naturalist at Acadia in 1940 and 1941 (Ahrens, 1941).

It was Ahrens' paper that first interested me in the Odonata of Mount Desert Island. Since my first visit in 1968 I have visited the island most years for about two weeks in August usually near the middle of the month. Some of the more interesting new records have been published (White, 1969; 1974). All of the published records and my previously unpublished records are summarized here. Also included are records of 26 species of Odonata recorded between August 16 and 19, 1988, from the Isle au Haut portion of Acadia National Park, Knox County, Maine.

The lure of finding boreal species at or near their southern limit of distribution has been an attraction for naturalists visiting Mount Desert Island. Perhaps as a consequence familiar species with southern affinities have been overlooked. That this may be the case for the Odonata is suggested by the fact that eleven of the twelve species reported here for the first time for Mount Desert Island are also known from Florida (Byers, 1930; Needham and Westfall, 1955) and most states between Maine and Florida; only *Aeshna verticalis* is not. In contrast, of the eleven that are known from Florida, only *Ischnura posita, Tarnetrum corruptum,* and *Pantala hymenaea* are also known from New Brunswick or Nova Scotia in nearby Canada (Walker, 1953; 1958; Walker and Corbet, 1975; Martin, 1970). While it is possible that these species with southern distributions have become established recently, most of them have been known for some time from elsewhere in southern and central Maine (Borror, 1944; 1951).

Of the 85 species previously known from the Mount Desert Island area, I have confirmed all but 17 and those are predominantly species with flight seasons that are over by August. In the annotated list that follows, detailed locality information is given only for those species that are relatively uncommon. Representative localities are provided for the common and familiar species. New species for Mount Desert Island are indicated with (*), those new to Maine with (**), and those that have not been observed in this study with (+). The earliest and latest records for Mount Desert Island are presented for each species. Place names are those used on the 1:24,000 scale U.S. Geological Survey topographic map of Acadia National Park and Vicinity, 1956.

ANNOTATED LIST

Zygoptera

Calopterygidae Four species in this family are known from Maine. Only one is known from Mount Desert Island.
Calopteryx maculata (Beauvois), the familiar black-winged damselfly, is common on the permanent streams of the island from June through August. (6/26-8/21)

Lestidae Nine species of spread-winged damselflies are known from New England and all have been found on Mount Desert Island. All are pond species and are most abundant where there are few fish and lots of emergent vegetation.
Lestes congener Hagen. This species is well-known from Mount Desert Island though rarely is it common. It has the latest flight season of all damselflies in New England with records as late as October 22 in Massachusetts (White, 1979). Many were emerging at The Featherbed, a shallow pond at 1000 ft on the south ridge of Cadillac Mountain, on August 13, 1973. (8/11-9/22)
L.d. disjunctus Selys is probably the most common *Lestes* on the island. It has been found in a variety of habitats ranging from bog ponds to lakes. It was the only *Lestes* observed on Isle au Haut from August 16-19, 1988. There it was particularly common at Merchants Cove. (7/29-9/1)
+*L. dryas* Kirby, reported by Johnson (1927), is very local and prefers temporary ponds. (7/13-7/29)
L. eurinus Say is the largest *Lestes* on the island. It has a preference for bog ponds. Ahrens (1941) found it in the bog at Seawall. A female was taken at Sargent Pond August 7, 1982. It was also taken at Blunts Pond in East Lamoine August 3, 1976, about two miles north of the island. (8/3-8/7)
L. forcipatus Rambur was fairly common August 21, 1986 at The Featherbed and August 11, 1988 at a small beaver pond just south of the Bee Hive. Both are small grassy temporary ponds. It has also been taken at Sargent Pond and in a heath near Duck Brook. (7/24-8/29)
**L. inaequalis* Walsh. Although previously known from Maine (Borror, 1944), a male collected August 14, 1986, near the dam at Long Pond Outlet, is the only record for Mount Desert Island.
L. rectangularis Say tends to stay among shaded vegetation in protected backwaters. It is known from a number of locations on the island. (late July-8/31)
L. unguiculatus Hagen. Procter (1938) reported this species from Seawall. I have taken it only once, on August 12, 1973, near the south shore of Great Cranberry Island in the Great Heath. Published records suggest

that this species was more common in the past. (8/12-9/8)
L. vigilax Hagen is much more established than Procter (1938) indicated. It is frequent to common in August around Round Pond, Witch Hole Pond, Somes Pond, the south end of Seal Cove Pond, and has been found at a number of other locations. (6/13-8/21)

Coenagrionidae Of the 28 species of damselflies in this family known from Maine only 15 are also known from Mount Desert Island. Of those, four are reported here for the first time.
Argia fumipennis violacea (Hagen). This is a common species around larger ponds and on brooks. It is particularly common in August on Duck Brook and on the brook between Long Pond Outlet and Ripple Pond. It has also been seen at Long Pond on Isle au Haut. (7/1-8/30)
A. moesta (Hagen) is common along the rocky shores of Eagle Lake, Jordan Pond, Long Pond, and Bubble Pond. (6/20-8/30)
+*Chromagrion conditum* (Hagen). Johnson (1927) reported this species for Bar Harbor on June 11. It has an early flight season and has not been observed in August.
Enallagma aspersum (Hagen) has been abundant at Sargent Pond in August. It has also been found at a number of other locations but tends to be most common around ponds with boggy margins. It was seen at Merchants Cove Pond, Isle au Haut. (8/3-8/23)
E. boreale Selys was emerging around Witch Hole Pond and Big Heath on May 30, 1971. Big Heath is the only locality on the island where this species has been found during August. (5/30-8/15)
E. carunculatum Morse. The only Maine record for this species is from Eagle Lake on August 27, 1970 (White, 1974). It has not been taken subsequently on Mount Desert Island. However, a male was collected August 15, 1987, at Tunk Lake about 25 miles north of Eagle Lake in Hancock County.
E. civile (Hagen) is common and can be found around the shallow bays of the larger ponds throughout the summer. It was taken at Merchants Cove and at Long Pond on Isle au Haut. (6/8-8/28)
+*E. cyathigerum* (Charpentier) is an early season species reported by Johnson (1927). Gloyd (1943) described the related *E. vernale* that occurs in New Hampshire (White and Morse, 1973) and Massachusetts (White *et al.,* 1974) and should occur in Maine. It is possible that the specimens identified as *E. cyathigerum* were in fact *E. vernale* or that both species occur on the island. (7/11)
******E. durum* (Hagen). A well established population of this species was discovered around Adams Bridge in the Bass Harbor Marsh on August 8, 1988. Because this species prefers brackish water, a habitat not usually expected for Odonates, its presence in Maine has been overlooked. It

undoubtedly occurs in favorable habitats elsewhere along the Maine coast. An unidentified large bright blue *Enallagma*, seen at Merchant Cove on Isle au Haut on August 17, 1988, may have been this species. Calvert (1894) reported this species from Woods Hole and Cuttyhunk Island in Massachusetts. I found it to be common at Bartlett Pond behind White Horse Beach, also in Massachusetts, on July 18 and 24, 1971. This species is not known from Canada but in light of its presence on Mount Desert Island, it should be anticipated at salt marshes in New Brunswick and Nova Scotia. A recent search of the Procter collection now at the University of Massachusetts revealed a specimen of *E. durum* collected by Frank Shaw on 2 July 1955 in Tremont, the town where the Bass Harbor Marsh is located. Thus *E. durum* is not new to Mount Desert Island. (7/2-8/8)

E. ebrium (Hagen) is not very common but it has been found at a variety of habitats including Bass Harbor Marsh, The Featherbed, Witch Hole Pond, and at the tarn near the summit of Penobscot Mountain. (7/31-8/21)

E. exsulans (Hagen) was common along the south shore of Eagle Lake on August 8, 1973. It was frequent at Seal Cove Pond on August 18, 1987. It is likely to be present on all the larger lakes and the permanent streams on Mount Desert Island. (8/8-8/23)

**E. geminatum* Kellicott. Although known from Maine (Borror, 1944; 1951) with dates ranging from June 30 to August 20, this species has not been recorded from Mount Desert Island or from nearby Canada. A pair was collected at Round Pond on August 23, 1973 and a male was seen at Witch Hole Pond on September 1, 1968. This species is common in eastern Massachusetts where its flying season extends from May 26 to October 1 (White, 1979).

E. hageni (Walsh) is wide-spread and commonly found around beaver ponds and marshes such as those along the carriage road between Eagle Lake and Witch Hole Pond. While it is frequently encountered in August, its peak abundance is in June and July. The August 27, 1970 records from Witch Hole Pond are quite late. A male was taken August 17, 1988 at Merchants Cove on Isle au Haut. (6/8-8/27)

E. minusculum Morse. Procter (1938) considered this species to be scarce; however, it has been fairly common for the past two decades in its preferred habitat. It can be found on the sparse vegetation emerging from sandy bottomed coves and bays of the larger lakes and ponds on the island. It regularly occurs at Eagle Lake, Bubble Pond, Witch Hole Pond, Long Pond, and Seal Cove Pond. (7/12-8/21)

**E. signatum* (Hagen). A male was collected and another seen at Round Pond on August 4, 1976. These are the only records for this species on Mount Desert Island. It is known from western Maine (Borror, 1951) but

it has not been reported from the Canadian provinces to the east. Its flight season in eastern Massachusetts is from June 13 to September 16 (White, 1979).

E. vesperum Calvert is active late in the day when it can be found perching on lily pads in the bays of the larger ponds. These habits result in sparse records for a species that is probably fairly common. It has been recorded from Round Pond, Witch Hole Pond, and Seal Cove Pond. (8/4-8/27)

**Ischnura posita* (Hagen) has not been recorded from the island before. I have seen it on three occasions: July 31, 1969 at Aunt Betty Pond; August 13, 1973 at the Mill Pond in Somesville; and August 2, 1976 at the pond at Seawall. Because it is known from Nova Scotia (Walker, 1953) and elsewhere in New England, its presence on Mount Desert Island was expected. (7/31-8/13)

I. verticalis (Say) is perhaps the most widely distributed damselfly in New England. It can be expected at all freshwater habitats on Mount Desert Island and Isle au Haut. (5/30-9/1)

Nehalennia irene (Hagen) is a well-camouflaged species and can easily be missed among bog and marsh vegetation even when it is common. It is widely distributed on the island and can be found regularly at The Featherbed and at Big Heath. (6/11-8/21)

Anisoptera

Cordulegasteridae Two of the three species of *Cordulegaster* known from Maine occur on Mount Desert Island.

+*Cordulegaster diastatops* (Selys). According to Procter (1938), this species is on all the streams of the island. Its flight period peaks in June and is usually over by August. (6/20)

+*C. maculata* Selys. Procter (1938) reports this species from Bubble Brook and Duck Brook. (6/16-7/20)

Gomphidae This family is generally, although not exclusively, associated with flowing water. Because there are no rivers or large streams on Mount Desert Island, many of the 17 species known from Maine do not occur on the island. Those that do occur on the island are associated mostly with streams or lake shores that experience wave action.

Hagenius brevistylus Selys can be found along shores of large ponds and along larger brooks where it can sometimes be seen capturing other Odonata. (7/29-8/23)

+*Ophiogomphus rupinsulensis* (Walsh) is normally associated with large rivers but was recorded from Eagle Lake by Howe (1918) based on a specimen in the Museum of Comparative Zoology, Harvard University.

Stylogomphus albistylus (Hagen) was first reported by Ahrens (1941) from the stream that flows into New Mill Meadow (Great Meadow). It is regular but scarce in August on the stream that flows into Ripple Pond. (7/16-8/18)
+*Lanthus parvulus* (Selys) was reported from Jordan Pond and the beaver dam on Norway Drive by Ahrens (1941). (7/19-8/7)
Gomphus exilis Selys is common around ponds in the early summer with a few still present in August. The August 18, 1988, record at Long Pond on Isle au Haut is a rather late date. (6/6-8/18)
G. spicatus Hagen was observed emerging on May 30, 1971 at Witch Hole Pond where Procter (1938) reports it from as late as July 30. (5/30-7/30)
Dromogomphus spinosus Selys is restricted to the rocky shores and open water of larger ponds such as Eagle Lake, Long Pond, and Seal Cove Pond. (8/8-8/28)

Aeshnidae This family of conspicuous large dragonflies is well-represented on Mount Desert Island. All but three of the 16 species known from Maine are found here and several of the rarer species are locally common.
Boyeria vinosa (Say) is probably found on all streams on the island in late summer. It was particularly common on shaded parts of Heath Brook south of the Seal Cove Fire Road on August 20, 1987. It also has been found patrolling the shores of Echo Lake and Long Pond. (7/25-9/8)
Basiaeschna janata (Say) occupies a similar habitat to that of the previous species; however, its flight season is quite different. The August 4, 1976 and August 8, 1973 records for Ripple Pond outlet and Eagle Lake, respectively, are very late for a species that is among the first to appear in the spring. (late May - 8/8)
+*Gomphaeschna furcillata* (Say). Procter (1938) found this species to be common hawking along the carriage roads near Breakneck and Witch Hole Ponds on June 7.
Anax junius Drury can be found most anywhere from May until late September. In the late summer recently emerged adults swarm over fields and clearings in preparation for a southward migration along the coast after the passage of cold fronts (Bagg, 1958). Premigratory swarming was observed at Head Harbor, Merchants Cove, and Duck Harbor on Isle au Haut and at several places on Mount Desert Island. (8/2-September)
Aeshna canadensis Walker is perhaps the most common *Aeshna* found on Mount Desert Island. It is likely to be found around any beaver pond, tarn, or wetland pool. It has been taken at Merchants Cove and Long Pond on Isle au Haut. (6/15-9/1)

A. clepsydra Say, while not common, is regularly found patrolling the shores of ponds with boggy margins such as Round Pond, Somes Pond, and Witch Hole Pond. (8/12-8/27)
A. eremita Scudder is very common at Sargent Pond in August. It is also found at The Bowl and other mountain ponds but in smaller numbers. (7/17-8/20)
A. i. interrupta Walker is found at a variety of habitats but is most common around old beaver ponds with stumps and floating vegetation such as The Bowl and a muddy pond adjacent to Witch Hole Pond. As with other *Aeshnas,* it can be found feeding far from its aquatic habitat. (8/3-10/10)
A. sitchensis Hagen. For many years Big Heath was the only habitat in New England for this species (Ahrens, 1941; White, 1974). It has now been found at Sunken Heath and at a heath along Duck Brook on Mount Desert Island. It was at virtually every heath explored along the southern end of Isle au Haut from Duck Harbor to Head Harbor during mid-August 1988. Curiously, females are very difficult to find. (7/31-8/30)
A. subarctica Walker. The population discovered at Big Heath has remained healthy for almost 20 years since its discovery in 1969 (White, 1974). No other localities have been found despite the exploration of many superficially appropriate habitats. (7/31-8/26)
A. tuberculifera Walker. Although this species was first reported from Mount Desert Island in 1969 (White, 1969), it has subsequently been taken at Witch Hole Pond, The Featherbed, and at 12 other locations on the island. In this species the females are brightly colored like the males and have similar behavior. Consequently, in contrast to other species of *Aeshna,* females are often seen. (8/6-9/1)
A. u. umbrosa Walker is often found foraging along carriage roads or patrolling small streams flying in and out of the shadows. It was very common along Heath Brook at the Seal Cove Fire Road on August 20, 1988, during a period of dry weather. In this same area on August 7, 1983, when the water was high and beaver dams had flooded the meadow, *A. umbrosa* was not present but *A. canadensis* was very common. *A. umbrosa* was taken August 18, 1988 in a field near the south end of Long Pond on Isle au Haut. This is one of the last dragonflies to be seen in the fall and therefore the flight season on Mount Desert Island undoubtedly extends well beyond that indicated. (8/7-9/1)
**A. verticalis* Hagen looks very similar to *A. canadensis* but has a different habitat. Thus the species are not usually found together except in foraging swarms away from water. For example, at Sunken Heath, *A. canadensis* is common at the small bog ponds whereas *A. verticalis* is restricted to a wet grassy meadow at the southwest corner of the heath. Other locations include Big Heath, Heath Brook, summit of Beech Mountain, and Great

Head. Of the species being reported for Mount Desert Island for the first time here, this is the only one that is not at or near its northeastern limit of distribution. Borror (1944) reported this species to be the most common *Aeshna* in southcentral Maine. (8/12-8/20)
+*Epiaeschna heros* (Fabricius). Ahrens' (1941) record of an ovipositing female on Squid Creek on July 18, 1940 remains the only one for this species on Mount Desert Island.

Macromiidae Two species within this family are known from New England and Mount Desert Island.
Didymops transversa (Say). Procter (1938) describes this species as common on all parts of the island from mid-June to August. I have not found this species in August but have found its exuviae on the underside of protected boulders along Jordan Pond. (6/11-7-17)
Macromia illinoiensis Walsh. Ahrens (1941) describes this species as not uncommon hawking along carriage roads. A female was taken at the summit of St. Sauveur Mountain on August 7, 1983 and a male was seen over the fire road near the Seal Cove Pond boat launch area on August 18, 1987. The later date is the latest date for this species in New England. (7/8-8/18)

Corduliidae All but five of Maine's 21 species of *Corduliidae* have been found on Mount Desert Island.
+*Williamsonia fletcheri* Williamson. There is one Mount Desert record for this rare, early season resident of spruce bogs (Montgomery, 1943). It is quite likely that the Breakneck Carriage Road locality is not the only place it occurs on the island. (6/6/35)
Dorocordulia lepida (Hagen) is a regular resident of peat stained ponds. Although not common in August, it has been found at a number of different locations such as Round Pond and Big Heath. It was taken at Merchants Cove on Isle au Haut on August 17, 1988. (6/8-8/23)
D. libera (Selys) is similar to the previous species but is much less common, at least in August when it has been taken only twice, three miles apart on the same day along the Seal Cove Fire Road. It was also taken at Round Pond July 27, 1957 by T.W. Donnelly. (6/8-8/7)
+*Helocordulia uhleri* (Selys) is a stream species with an early flight season that extends into July. Johnson (1927) took it at Eagle Lake on July 12. (June-end July)
Somatochlora cingulata (Selys). The only Maine record for this species is from Mount Desert Island (White, 1974); however, the species, though elusive, is not rare and probably can be found throughout northern and eastern Maine. T.W. Donnelly collected it in the vicinity of Little Pillsbury Pond and Haynock Lake, Piscataquis Co. on 20-21 July 1982. It is a resi-

dent of large clear lakes such as Echo Lake, Eagle Lake, and Long Pond. Since it flies rapidly over open water, it is rarely encountered at close quarters there. In August it is one of the species regularly seen foraging at the summits of Cadillac, Sargent, Acadia, and Beech Mountains. (8/8-8/17)

S. elongata (Scudder). The only previous specimen from Mount Desert Island was taken by C.P. Alexander on June 16, 1935, along Breakneck Brook (Procter, 1938). I have found it there and also along Heath Brook and the boggy tributaries on the west side of Somes Pond. (6/16-8/20)

S. forcipata (Scudder). A female taken by Ahrens (1941) at Echo Lake on July 3, 1940 is the only Mount Desert Island record. A male was taken in a heath west of Merchants Cove on Isle au Haut on August 17, 1988 where it was in association with *S. incurvata.* This is a very late date for this species. (7/3-8/17)

S. incurvata Walker. The only records for New England were from Big Heath (White, 1969). It has now been found at Sunken Heath and a heath on the west side of Duck Brook. It was fairly common with *Aeshna sitchensis* at a number of bog-heath habitats on Isle au Haut August 17-19, 1988. (8/11-8/30)

+*S. kennedyi* Walker. A single male taken by Ahrens (1941) at Eagle Lake on July 3, 1940 is the only Mount Desert Island record.

+*S. minor* Calvert. Two females taken by Ahrens (1941) along a small tributary of Aunt Betty Pond on August 14, 1940 are the only records.

S. tenebrosa (Say). Ahrens (1941) occasionally found this species along shady streams in August. I have collected it once on August 13, 1980 at the parking lot by the Beech Mountain Trail.

S. walshi (Scudder) can regularly be found along the path to Wonderland, Heath Brook, and the boggy tributaries of Somes Pond. There are several additional records from the island. Single males were taken along roads near Duck Harbor and Merchants Cove on Isle au Haut. (7/21-8/20)

S. williamsoni Walker. In addition to a single record from lower Northeast Creek (Ahrens (1941), I have taken it at the summit of Beech Mountain on August 13, 1980 and at a marsh at the northern tip of Long Pond on August 14, 1986. (7/21-8/14)

Cordulia shurtleffi Scudder is common around boggy ponds and beaver ponds in the early summer (Johnson, 1927). My only August record is from nearby Blunts Pond in East Lamoine north of Mount Desert Island. (6/6-8/3)

Tetragoneuria cynosura (Say) was reported from Echo Lake by Johnson (1927). It was frequent near Witch Hole Pond on May 30, 1971. (5/30-7/12)

+*T. spinigera* Selys was reported from Breakneck Road and Witch Hole (Procter, 1938). (6/6-6/12)

Libellulidae Twenty-one of the 32 libellulids known from Maine have been found on Mount Desert Island.

Nannothemis bella (Uhler) is a resident of bog pools and is probably found in any appropriate habitat throughout the island. The only August record is August 14, 1986 in the bog at the upper end of Somes Pond. (6/13-8/14)

Celithemis elisa (Hagen). Isolated individuals have been taken at a number of locations around the island. It is regularly found at Ripple Pond into the later half of August. It was seen at Merchants Cove and Long Pond on Isle au Haut on August 18, 1988. (6/15-8/21)

C. martha Williamson and *C. elisa* are often found together. A male was taken at Long Pond on Isle au Haut. (8/6-8/23)

Libellula exusta Say is common around all small ponds in June. There are, however, only seven sightings in August. The August 23, 1973 record for Round Pond is a very late date. (6/13-8/23)

**L. incesta* Hagen is a regular resident of Mount Desert Island that heretofore has gone undetected. It has been found at Round Pond, Witch Hole Pond, and Long Pond Outlet. It was rather common at the Mill Pond in Somesville on August 12, 1988. (8/4-8/23)

L. julia Uhler. Ahrens (1941) reported this species to be fairly common at the bog ponds at Seawall in August. I have taken it several times at nearby Big Heath. The male taken at Great Meadow in Bar Harbor on August 31, 1968 is a very late record. (8/2-8/31)

L. lydia Drury is an occasional resident of abandoned beaver ponds and artificial ponds. It was seen at Merchants Cove, Isle au Haut, on August 18, 1988. (6/11-8/18)

L. pulchella Drury has been found at a number of localities on the island; however, it does not seem to be as common as reported by Ahrens (1941). It was fairly common at the fresh water pond behind the sea wall at Merchants Cove, Isle au Haut, on August 17, 1988. (7/31-8/25)

L. quadrimaculata Linné is common around the ponds and marshes of the island. Many tenerals were observed near Witch Hole Pond on May 30, 1971. Normally the flight season is over by August; however, it was seen at Merchants Cove and Duck Harbor on August 17, 1988. (5/30-8/17)

+*L. semifasciata* Burmeister is a resident of marshy ponds and has an early flight season (Procter, 1938). (6/15)

**Erythemis simplicicollis* (Say). A single male seen August 18, 1971 at Big Heath is the only Mount Desert record. It was first reported from Maine by Borror (1951)

**Pachydiplax longipennis* (Burmeister) has been seen twice on the island, once at Big Heath on August 21, 1973 and once at a beaver pond on

Breakneck Brook, August 12, 1976. There are only two other records for Maine (Borror, 1951). Neither this nor the preceding species has been reported from Nova Scotia or New Brunswick in nearby Canada.
Sympetrum costiferum (Hagen) is fairly common around the larger bog-margined ponds such as Witch Hole Pond and Round Pond. It has also been found at a number of other ponds and near the summits of several mountains. As with the other *Sympetrums,* the flight season undoubtedly extends well into September. (8/4-8/27)
S. danae (Sulzer). Ahrens (1941) took four males in a tide swamp on Great Duck Island. A single male was taken August 13, 1973 at The Featherbed and remains the only record for Mount Desert Island proper. This is near the southern edge of this species' range. (8/3-8/13)
S. internum Montgomery is a common and wide-spread dragonfly of late summer. It is usually found perching on vegetation near the borders of meadows and other wetlands. Records for *S. rubicundulum* (Say) in previous publications most certainly are this species. There are still taxonomic difficulties here and *internum* records may include more than one species on this island and on Isle au Haut. (7/31-9/8)
S. obtrusum (Hagen). A single male taken at Big Heath August 12, 1973 is my only record. Procter (1938) reports it from several locations. It appears that this species was more common in the past. (8/12-8/18)
S. semicinctum (Say) is fairly common and wide-spread on the island. It usually is found in the vicinity of wet meadows with flowing water or around beaver dams. Ripple Pond and Half Moon Pond are good places to find it. It was found at Merchants Cove, Isle au Haut. (8/5-8/27)
S. vicinum (Hagen) is the last *Sympetrum* of the fall in New England. It is common at Round Pond and Sunken Heath on Mount Desert Island and at Merchants Cove on Isle au Haut. (8/4-10/17)
***Tarnetrum corruptum* (Hagen) is a migratory dragonfly abundant in the western United States. The few records from southern New England (Howe, 1921; Garman, 1927) are from coastal areas. A single male, captured by hand at the pond behind Sand Beach August 8, 1980, represents a new record for Maine. Martin (1970) reported it from Sable Island, Nova Scotia.
Leucorrhinia frigida Hagen typically is found perched on lily pads. Thus shallow ponds such as Aunt Betty Pond and Ripple Pond are preferred habitats. The August 21, 1986 record from The Featherbed may be the latest date for this species. (6/13-8/21)
L. glacialis Hagen. Tenerals were observed at Witch Hole Pond and Big Heath on May 30, 1971. In August it has been found regularly only at Big Heath and at Duck Pond on the Long Pond Fire Road. The August 21, 1973 record from Big Heath is the latest record for this species in New England. (5/30-8/21)

L. hudsonica (Selys). Many tenerals were seen at Witch Hole Pond and Big Heath on May 30, 1971. There are only two August records from Mount Desert Island: August 7, 1982, at Sargent Pond and August 21, 1987, at Heath Brook. (5/30-8/21)
+*L. intacta* Hagen is common at ponds in June and July according to Johnson (1927). (6/1-8/1)
+*L. proxima* Calvert was reported by Johnson (1927). (6/11-7/24)
****Tramea carolina*** (Linné) is a new record for Maine. A male was observed for about five minutes as it hawked over a small temporary pond near the base of the Bee Hive on August 11, 1988. The bright red color at the base of its wings distinguished it from the black-colored *T. lacerata* probably observed by Borror (1957) in Lincoln County.
Pantala flavescens (Fabricius) is a regular migrant along the coast each summer. It is often seen hawking over parking lots, rocky headlands, and mountain summits. Many were observed at the summit of Gorham Mountain on August 15, 1982. It was also seen along the south shore of Isle au Haut on August 17, 1988. (8/7-8/28)
P. hymenaea (Say). Heretofore the only published record for this species in Maine was from Muscongus Island (Borror, 1944). It was seen once at Great Head near Sand Beach on August 17, 1981. In 1988 I made numerous sightings of this species in a variety of places in the northeastern United States where it had rarely, if ever, been seen before, including Maine. A male was collected at Merchants Cove, Isle au Haut, on August 17, 1988, and it was seen many times along the south shore of that island being more common than *P. flavescens*. It was also seen in downtown Bar Harbor on August 23, 1988. (8/17-8/23)

In addition to these 97 documented species, there are a number of other species that should or could occur on Mount Desert Island and undoubtedly will be found when the appropriate habitats are explored in June and July. The following nonexclusive list attempts to identify a few additional species that are most likely to occur on the island. Also listed are the preferred habitats of these species.

Coenagrion resolutum (Hagen) (marshy ponds and beaver dams)
Enallagma vernale Gloyd (ponds)
Nehalennia gracilis Morse (sphagnum bogs)
Gomphus borealis Needham (beaver ponds)
Somatochlora franklini (Selys) (bogs)
Tetragoneuria canis (McLachlan) (beaver ponds)
Erythrodiplax berenice (Drury) (salt marshes)

Additional Notes on the Odonata of Maine

An earlier publication that reported new Odonata for the state of Maine (White, 1974) overlooked a publication by Harwood (1959) in which *Calopteryx amata* Hagen was reported. In 1979, Mingo *et al.* reported the nymph of *Macromia taeniolata* Rambur from the St. John River. This is a southern species not known north of Delaware. Thus it is unlikely that the species occurs in Maine. *Boyeria grafiana* Williamson, previously unreported from Maine, was seen by the author along a small stream at the Route 3 roadside rest area about 3 mi east of Dixfield, Oxford Co.

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